

1. Product and Company Identification

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Product Name Di-tert-butyl peroxide

Part Number RXSOL-60-3303-025

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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Chemical Name	Cas No	EC No	Weight	Formula
Sodium hypochlorite solution	110-05-4	203-733-6	146,23 g/mol	: C8H18O2

3. Hazards Identification

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Statement(s)

Signal Word	Danger
Hazard Statements	No Data available
H225	Highly flammable liquid and vapor
H242	Heating may cause a fire
H341	Suspected of causing genetic defects..
H412	Harmful to aquatic life with long lasting effects.
Precautionary statement(s)	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep/Store away from clothing/ combustible materials.
P273	Avoid release to the environment
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P410	Protect from sunlight
P411 + P235	Store at temperatures not exceeding 30°C/ 86 °F. Keep cool.
Supplemental Hazard information (EU)	None

4. First Aid Measures

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General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Call in physician.
Swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician..
Eye contac	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
Ingestion	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.
Most important symptoms and effects, both acute and delaye	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

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Flammability	May be combustible at high temperature.
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Hydrogen chloride gas Sodium oxides Not combustible. Ambient fire may liberate hazardous vapours..
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	No data available
Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Protective Equipment	No data available
Specific Hazards Arising from the Chemical	No data available

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Personal Protection	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
Enviromental Precaution	Do not let product enter drains. Risk of explosion
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

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Advice on safe handling	For precautions see section 2.2.
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Precautions for safe handling	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.s.
Hygiene measures	Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2..
Advice on safe handling	No data available
Conditions for safe storage, including any incompatibilities	Storage conditions No metal containers. Tightly closed. Do not store near acids. Storage stability Recommended storage temperature
Storage conditions	Tightly closed. Separately or together with other organic peroxides only and away from sources of ignition and heat.
Storage class	Storage class (TRGS 510): 5.2: Organic peroxides and self-reacting hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Advice on general occupational hygiene	No data available

8. Exposure controls and personal protection

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Exposure controls	Ingredients with workplace control parameters.
Engineering Control	Personal protective equipmen
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles
Body Protection	protective clothing.
Skin protection	Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm
Respiratory protection	required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type ABEK The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Do not let product enter drains.

9. Physical and chemical properties

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Physical state	clear, liquid
Colour	colorless
Odour	very faint
Odor Threshold	Not Applicable
pH	5,5 - 6,5 at 50 g/l at 20 °C
Melting Point	Melting point/range: < -29 °C - OECD Test Guideline 102
Boiling Point	109 - 110 °C - lit.
Flash Point	Upper explosion limit: > 99 %(V)
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available

Vapour pressure	53 hPa at 20 °C
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Density	0,796 g/mL at 25 °C - lit.
Relative Density	No data available
Specific Gravity	No data available
Partition coefficient	Upper explosion limit: > 99 %(V)
Explosive properties	No data available
Solubility	No data available
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

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Reactivity	Vapors may form explosive mixture with air.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Risk of explosion with: Amines
Conditions to avoid	Warming.
Incompatible materials	No data available
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

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Acute toxicity	LD50 Oral - Rat - > 2.000 mg/kg (OECD Test Guideline 423) LC50 Inhalation - Rat - male and female - 4 h - > 22 mg/l - vapor (OECD Test Guideline 436) LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
Serious eye damage/irritation	Remarks: No data available Remarks: Mixture causes serious eye damage. Risk of blindness!
Respiratory or skin sensitization	Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)
Carcinogenicity	Buehler Test - Guinea pig Result: Does not cause skin sensitization. (OECD Test Guideline 406)
Germ cell mutagenicity	Suspected of causing genetic defects. In vitro tests showed mutagenic effects Test Type: Ames test Test system: TA1535
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available
Additional Information	: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately. The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhoea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, haemolysis. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

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Persistence and degradability	The methods for determining biodegradability are not applicable to
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Toxicity to fish	inorganic substances LC50 - Oncorhynchus mykiss (rainbow trout) - 0,107 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity	No data available
Toxicity to bacteria	No data available
Toxicity to algae	No data available
Products Biodegradation	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No data available

13. Disposal considerations

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Waste treatment methods	No data available
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14. Transport information

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UN number	ADR/RID:3107 IMDG:3107 IATA:3107
UN proper shipping name	ADR/RID: ORGANIC PEROXIDE TYPE E, LIQUID (DI-tert-BUTYL PEROXIDE) IMDG: ORGANIC PEROXIDE TYPE E, LIQUID (DI-tert-BUTYL PEROXIDE)
Transport hazard class(es)	IATA: Organic peroxide type E, liquid (Di-tert-Butyl peroxide)
Packaging group	ADR/RID: 5.2 IMDG: 5.2 IATA:5.2
Environmental hazards	ADR/RID: : IMDG:: IATA::
Special precautions for user	ADR/RID:No IMDG: No Marine pollutant: No IATA: No
Further information	unnel restriction code : (E) :No data available

15. Regulatory information

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Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
National legislation	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES
Other regulations	Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. Other information

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Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no
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